

PATENT APPLICATION **RECEIVED**
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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APPLICATION OF)
MARTIN ADAMCZEWSKI ET AL) GROUP NO.: 1636
SERIAL NUMBER: 09/941,179)
FILED: AUGUST 27, 2001)
TITLE: ACETYLCHOLINE RECEPTOR)
SUBUNITS)

INFORMATION DISCLOSURE STATEMENT
UNDER 37 C.F.R. 1.97(b)

Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

This disclosure statement under 37 CFR 1.97 & 1.98 is submitted before the first Office Action in order that the Patent and Trademark Office may consider the relevancy of certain information to the invention described and claimed in the subject application, and in compliance with the regulations concerning information disclosure statements. Enclosed are copies of the following:

- a) documents described in the above-identified application, listed on the attached Form PTO 1449,
- b) the Search Report received in the corresponding application pending in the European Patent Office and an English language translation thereof; and

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to Assistant Commissioner for Patents, Washington, D.C. 20231 on 9/13/2002
Date

Raymond J. Harmuth, Reg. No. 33,896

Name of applicant, assignee or
Registered Representative

Signature
September 13, 2002

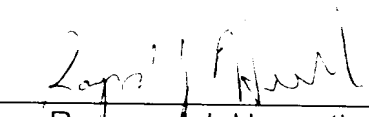
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- c) the documents cited by the European Patent Office in the Search Report and a corresponding English language equivalent, (except for document being submitted) listed on the attached Form PTO 1449.

This Information Disclosure Statement should not be construed as a representation that a search has been made, that additional information material to the examination of this application does not exist, that any reference mentioned herein constitutes prior art, or that the references listed, severally or in any combination with one another or with any other information, are believed to render any claim in the subject application prima facie unpatentable.

Respectfully submitted,

By


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LIST OF PRIOR ART CITED BY APPLICANT
(Use Several Sheets If Necessary)Atty. Docket No.
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U.S. PATENT DOCUMENTS

EXAMINER INITIAL	PATENT & TRADEMARK OFFICE	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE
	AA	5,591,590	01/07/97	Heinemann et al	435	7.1	
	AB	5,599,709	02/04/97	Lindstrom et al	435	252.3	
	AC	5,683,912	11/04/97	Elgoyhen et al	435	252.3	
	AD	2002/0006657 A1	01/17/02	(Bel. to corresp. to EP Adamczewski et al	962,528) 435	252.3	
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FOREIGN PATENT DOCUMENTS

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OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)

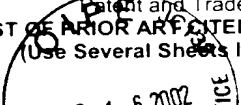
	AR	Neuroscience Letters, 199, (month unavailable) 1995) pages 107-110, M. Amar, P. Thomas S. Wonnacott, G.G. Lunt, A nicotinic acetylcholine receptor subunit from insect brain forms a non-desensitising home-oligomeric nicotinic acetylcholine receptor when expressed in <i>Xenopus</i> oocytes"
	AS	FEBS, Vol. 327, No. 3, August 1993, pages 284-288, M. Amar, P. Thomas C. Johnson, G.G. Lunt and S. Wonnacott, "Agonist pharmacology of the neuronal $\alpha 7$ nicotinic receptor expressed in <i>Xenopus</i> oocytes"
	AT	Eur. J. Neurosci., Vol. 6, (month unavailable) 1994, pages 869-875, D. Bertrand, M. Ballivet, M. Gomez, S. Bertrand, B. Phannavong and E.D. Gundelfinger, "Physiological Properties of Neuronal Nicotinic Receptors Reconstituted from the Vertebrate $\beta 2$ Subunit and <i>Drosophila</i> α Subunits

EXAMINER

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	AL						
	AM						
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	AO						
	AP						

OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)

AR	Neurosci. Lett., 146, (month unavailable) 1992, pages 87-90, Daniel Bertrand, Sonia Bertrand and Marc Ballivet, "Pharmacological properties of the homomeric $\alpha 7$ receptor"
AS	Methods in Neuroscience, Vol. 4, (month unavailable) 1991, pages 174-193, D. Bertrand, E. Cooper, S. Valera, D. Rungger, and M. Ballivet, "Electrophysiology of Neuronal Nicotinic Acetylcholine Receptors Expressed in <i>Xenopus</i> Oocytes following Nuclear Injection of Genes or cDNAs"
AT	J. Insect Physiol., Vol. 33, (month unavailable) 1987, pages 771-790, "Molecular Properties and Functions of Insect Acetylcholine Receptors"

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	AM					
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	AP					

OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)

AR	J. Exp. Biol 200, (month unavailable) 1997, pages 2685-2692, S.D. Buckingham, B. Lapied, H. Le Corranc, F. Grolleau and D.B. Sattelle, "Imidacloprid Actions on Insect Neuronal Acetylcholine Receptors"
AS	J. Neuroscience 16, December 15, 1996, pages 7880-7891, Bruno Buisson, Murali Gopalakrishnan, Stephen P. Arneric, James P. Sullivan and Daniel Bertrand, "Human $\alpha 4 \beta 2$ Neuronal Nicotinic Acetylcholine Receptor in HEK 293 Cells: A Patch-Clamp Study"
AT	Quarterly Reviews of Biophysic 25, (month unavailable) 1992, pages 395-432, Jean-Pierre Changeux, Jean-Luc Galzi, Anne Devillers-Thiery and Daniel Bertrand, "The functional architecture of the acetylcholine nicotinic receptor explored by affinity labelling and site-directed mutagenesis"

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	AN						
	AO						
	AP						

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AR	Proc. Nat. Acad. Sci. USA 80, (month unavailable) 1983, pages 1111-1115, Toni Claudio, Marc Ballivet, Jim Patrick and Stephen Heinemann, "Nucleotid and deduced amino acid sequences of <i>Torpedo californica</i> acetylcholine receptor γ subunit"
AS	Eur. J. Pharmacol., 309, (month unavailable) 1996, pages 287-298, Julia C. Cooper, Oliver Gutbrod, Viet Witzemann, Christoph Methfessel, "Pharmacology of the nicotinic acetylcholine receptor from fetal rat muscle expressed in <i>Xenopus</i> oocytes"
AT	J. Pharmacol. Exp. Therapeut., 280, (month unavailable) 1997, pages 428-438, O. Delbono, M. Gopalakrishnan, M. Renganathan, L.M. Monteggia, M.L. Messi and J.P. Sullivan, "Activation of the Recombinant Human α_7 Nicotinic Acetylcholine Receptor Significantly Raises Intracellular Free Calcium"

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	AP					

OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)

AR	Proc. Natl. Acad. Sci. USA 80, (month unavailable) April 1983, pages 2067-2071, Anne Devillers-Thiery, Jerome Giraudat, Martine Bentaboulet and Jean-Pierre Changeux. "Complete mRNA coding sequence of the acetylcholine binding α -subunit of <i>Torpedo marmorata</i> acetylcholine receptor: A model for the transmembrane organization of the polypeptide chain"
AS	Eur. of Neurosci., Vol. 10, (month unavailable) 1998, pages 879-889, Helen M. Eastham, Robert J. Lind, Jane L. Eastlake, Barry S. Clarke, Paul Towner, Stuart E. Reynolds, Adrian J. Wolstenholme and Susan Wonnacott, "Characterization of a nicotinic acetylcholine receptor from the insect <i>Manduca sexta</i> "
AT	Eur. J. Pharmacol., 290 (month unavailable) 1995, pages 237-246, Murali Gopalakrishnan, Bruno Buisson, Edward Touma, Tony Giordano, Jeff E. Campbell, Iris C. Hu, Diana Donnelly- Roberts, Stephen P. Arneric, Daniel Bertrand and James P. Sullivan, "Stable expression and pharmacological properties of the human α_7 nicotinic acetylcholine receptor"

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	AL					
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AR	J. Pharmacol. Exp. Therapeut. 276, (month unavailable) 1996, pages 280-297, Murali Gopalakrishnan, Lisa M. Monteggia, David J. Anderson, Eduardo J. Molinari, Marietta Piattoni-Kaplan, Diana Donnelly-Roberts, Stephen P. Arneric and James P. Sullivan, "Stable Expression, Pharmacologic Properties and Regulation of the Human Neuronal Nicotinic Acetylcholine $\alpha_4\beta_2$ Receptor"
AS	J. Biol. Chem., 260, March 1985, pages 3440-3450, Grzegorz Gryniewicz, Martin Poenie, and Roger Y. Tsien, "A New Generation of Ca^{2+} Indicators with Greatly Improved Fluorescence Properties"
AT	EMBO Journal, 5, (month unavailable) 1986, pges 1503-1508, Irmgard Hermans-Borgmeyer, Dieter Zopf, Rolf-Peter Ryseck, Bernd Hovemann, Heinrich Betz and Eckart D. Gundelfinger, "Primary structure of a developmentally regulated nicotinic acetylcholine receptor protein from <i>Drosophila</i> "

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	AO							
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OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)

AR	J. Biol. Chem. Vol. 273, No. 29, July 17, 1998, pages 18394-18404, Bernhard Hermsen, Eva Stetzer, Rüdiger Thees, Reinhard Heiermann, Andre Schrattenholz, Ulrich Ebbinghaus, Axel Kretschmer, Christoph Methfessel, Sigrid Reinhard and Alfred Maelicke. "Neuronal Nicotinic Receptors in the Locust <i>Locusta migratoria</i> "
AS	J. Neurochem. 73, (month unavailable) 1999, pages 380-389, Yao Huang, Martin S. Williamson, Alan L. Devonshire, John D. Windass, Stuart J. Lansdell and Neil S. Millar, "Molecular Characterization and Imidacloprid Selectivity of Nicotinic Acetylcholine Receptor Subunits from the Peach-Potato Aphid <i>Myzus persicae</i> "
AT	Biotechniques 23, July 1997, Jespersen et al, pages 48, 50 and 52, "Efficient Non-PCR-Mediated Overlap Extension of PCR Fragments by Exonuclease "End Polishing"

EXAMINER

DATE CONSIDERED

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	AL							
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	AN							
	AO							
	AP							

OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)

	AR	J. Neurochem., 68, (month unavailable) 1997, pages 1812-1819, Stuart J. Landsell, Bertram Schmitt, Heinrich Betz, David B. Sattelle, and Neil S. Millar, "Temperature-Sensitive Expression of <i>Drosophila</i> Neuronal Nicotinic Acetylcholine Receptors"
	AS	Neuropharmacology, 39, (month unavailable) 2000, pages 671-679, Stuart J. Landsell and Neil S. Millar, "The influence of nicotinic receptor subunit composition upon against, α -bungarotoxin and insecticide (Imidacloprid) binding affinity"
	AT	EMBO J., vol. 9, 13, (month unavailable) 1990, pages 4391-4398, John Marshall, Steven D. Buckingham, Ryuzo Shingai, George G. Lung, Michael W. Goosey, Mark G. Darlison, David B. Sattelle and Eric A. Barnard, "Sequence and functional expression of a single α subunit of an insect nicotinic acetylcholine receptor"

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OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)

	AR	Br. J. Pharmacol., 123, (month unavailable) 1998, pages 518-524, K. Matsuda, S.D. Buckingham, J.C. Freeman, M.D. Squire, H.A. Baylis and D.B. Sattelle, "Effects of the α subunit on imidacloprid sensitivity of recombinant nicotinic acetylcholine receptors"
	AS	Nature, Vol. 299, October 1982, pages 793-797, Masaharu Noda, Hideo Takahashi, Tsutomu Tanabe, Mitsuyoshi Toyosato, Yasuji Furutani, Tadaaki Hirose, Michiko Asai, Seiichi Inayama, Takashi Miyata & Shosaku Numa, "Primary structure of α -subunit precursor of <i>Torpedo californica</i> acetylcholine receptor deduced from cDNA sequence"
	AT	Nature, Vol. 301, January 20, 1983, pages 251-255, Masaharu Noda, Hideo Takahashi, Tsutomu Tanabe, Mitsuyoshi Toyosato, Sho Kikuyotani, Tadaaki Hirose, Michiko Asai, Hideaki Takashima, Seiichi Inayama, Takashi Miyata & Shosaku Numa, "Primary structures of β - and δ -subunit precursors of <i>Torpedo californica</i> acetylcholine receptor deduced from cDNA sequences"

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AL					
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AO					
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OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)

AR	Nature, Vol. 302, April 7, 1983, pages 528-532, Masaharu Noda, Hideo Takahashi, Tsutomu Tanabe, Mitsuyoshi Toyosato, Sho Kikuyotani, Yasuji Furutani, Tadaaki Hirose, Hideaki Takashima, Selichi Inayama, Takashi Miyata & Shosaku Numa, "Structural homology of <i>Torpedo californica</i> acetylcholine receptor subunits"
AS	Trends in Neuroscience 18, No. 3, (month unavailable) 1995, pages 121-127, Marcelo O. Ortells and George G. Lunt, "Evolutionary history of the ligand-gated ion-channel superfamily or receptors"
AT	Biochimie, 78, (month unavailable) 1996, pages 364-369, G Perrière, M. Gouy, "WWW-Query: An on-line retrieval system for biological sequence banks"

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	AR	Eur. J. Neurosci. 9, (month unavailable) 1997, pages 480-488, D. Ragozzino, S. Fucile, A. Giovannelli, F. Grassi, A.M. Mileo, M. Ballivet, S. Alema and F. Eusebi, "Functional Properties of Neuronal Nicotinic Acetylcholine Receptor Channels Expressed in Transfected Human Cells"
	AS	EMBO J., Vol. 9, No. 9, (month unavailable) 1990, pages 2671-2677, Erich Sawruk, Patrick Schloss, Heinrich Betz and Bertram Schmitt, "Heterogeneity of <i>Drosophila</i> nicotinic acetylcholine receptors: SAD, a novel developmentally regulated α -subunit"
	AT	FEBS, Vol. 273, No. 1,2, October 1990, Erich Sawruk, Conny Udri, Heinrich Betz and Bertam Schmitt, "SBD, a novel structural subunit of the <i>Drosophila</i> nicotinic acetylcholine receptor, shares its genomic localization with two α -subunits"

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						Yes	No*
	AL						
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	AC						
	AP						

OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)

AR	EMBO J. Vol. 7, No. 9, (month unavailable) 1988, pages 2889-2894, Patrick Schloß, Irm Hermans-Borgmeyer, Heinrich Betz and Eckart D. Gundelfinger. " Neuronal acetylcholine receptors in <i>Drosophila</i> : the ARD protein is a component of a high-affinity α -bungarotoxin binding complex"
AS	Neuron, Vol. 5, July 1990, pages 35-48, Ralf Schoepfer, William G. Conroy, Paul Whiting, Martin Core and Jon Lindstrom. "Brain α -Bungarotoxin Binding Protein cDNAs and MAbS Reveal Subtypes of This Branch of the Ligand-Gated Ion Channel Gene Superfamily"
AT	J Neurochem. 71, (month unavailable) 1998, pages 853-862 R. Schulz, E. Sawruk, C. Mülhardt, S. Bertrand, A. Baumann, B. Phannavong, H. Betz, D. Bertrand, E.D. Gundelfinger and B. Schmitt. "D α 3, a New Functional α Subunit of Nicotinic Acetylcholine Receptors from <i>Drosophila</i>

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	AL						
	AM						
	AN						
	AO						
	AP						

OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)

AR	J. Neurochem. 74, (month unavailable) 2000, pages 2537-46, Regine Schulz, Sonia Bertrand, Kathrin Chamaon, Karl-Heinz Smalla, Eckart D. Gundelfinger, and Daniel Bertrand, "Neuronal Nicotinic Acetylcholine Receptors from <i>Drosophila</i> : Two Different Types of α Subunits Coassemble Within the Same Receptor Complex"
AS	J. Neurochem. 71, (month unavailable) 1998, pages 903-912, F. Sgard, S.P. Fraser, M.J. Katkowska, M.B.A. Djamgoz, S.J. Dunbar, and J.D. Windass, "Cloning and Functional Characterisation of Two Novel Nicotinic Acetylcholine Receptor α Subunits from the Insect Pest <i>Myus persicae</i> "
AT	J. Pharmacol. Exp. Therapeut. 284, (month unavailable) 1998, pgs. 777-789, Kenneth A. Stauderman, L. Scott Mahaffy, Michael Akong, Gönül Velicelebi, Laura E. Chavez-Noriega, James H. Orona, Edwin C. Johnson, Kathryn J. Elliott, Alison Gillespie, Richard T. Reid, Pamala Adams, Michael M. Harpold and Janis Corney-Naeve, "Characterization of Human Recombinant Neuronal Nicotinic Acetylcholine Receptor Subunit Combinations $\alpha 2\beta 4$, $\alpha 3\beta 4$ and $\alpha 4\beta 4$ Stably Expressed in HEK293 Cells"

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DATE CONSIDERED

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FOREIGN PATENT DOCUMENTS

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AL					
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AN					
AO					
AP					

OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)

AR	FEBS Lett., 397 (month unavailable) 1996, pages 39-44, Eva Stetzer, Ullrich Ebbinghaus, Alexander Storch, Livia Poteur, Andre Schratzenholz, Gert Kramer, Christoph Methfessel, Alfred Maelicke. "Stable expression in HEK-293 cells of the rat $\alpha 3/\beta 4$ subtype of neuronal nicotinic acetylcholine receptor"
AS	Nucleic Acids Research, vol. 25, no. 24, (month unavailable) 1997, pages 4876-4882, Julie D. Thompson, Toby J. Gibson, Frédéric Plewniak, Francois Jeanmougin and Desmond G. Higgins. "The CLUSTAL_X windows interface: flexible strategies for multiple sequence alignment aided by quality analysis tools"
AT	Mol. Pharmacol. 55, (month unavailable) 1999, pages 970-981, J. Zhang, Y. Xiao G. Abdrakhmanova, W. Wang, L. Cleemann, K.J. Kellar, and M. Morad. "Activation and Ca^{2+} Permeation of Stably Transfected $\alpha 3/\beta 4$ Neuronal Nicotinic Acetylcholine Receptor"

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FOREIGN PATENT DOCUMENTS

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	AL					
	AM					
	AN					
	AO					
	AP					

OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)

AR	Van De Beukel I. Et Al.: "Nicotinic acetylcholine receptor chimeras of rat alpha7 and Drosophila"
	Pesticide Science, Bd. 55, Nr. 10, Oktober 1999 (1999-10), Seiten 1031-1033, XP002198050
	Seite 1032, Spalte 1, Absatz 2 – Spalte 2, Absatz 2
AS	Database Trembl 'Online! Accession no. 046134, 1, Juni 1998 (1998-06-01) Hermesen B. et al.:
	"Nicotinic Acetylcholine Receptor, Alpha3 Subunit (Fragment)" XP002198052 Zusammenfassung
AT	Database Trembl "Online! Accession no. 046128, 1. Juni 1998 (1998-06-01) Jafarigorzini S. et al.:
	"Nicotinic Acetylcholine Receptor Alpha 1 Subunit Precursor" XP002198053

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DATE CONSIDERED

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	AL					
	AM					
	AN					
	AO					
	AP					

OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)

AR	Butler D.H. Et AL. "Mouse-Torpedo chimeric alpha-subunit used to probe channel-gating determinants on the nicotinic acetylcholine receptor primary sequence" Cellular and Molecular Neurobiology. Bd. 17, Nr. 1, Februar 1997 (1997-02), Seiten 13-33, XP001040498 Abbildung 2; Tabelle 1
AS	Itier V Et Al: "Neuronal nicotinic receptors: from protein structure to function" FEB LETTERS, Elsevier Science Publishers, Amsterdam, NL, Bd. 504 Nr. 3, 31. August 2001 (2001-08-31), Seiten 118-125, XP004304265 ISSN: 0014-5793 das ganze Dokument
AT	

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